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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/550,594	09/23/2005	Jens-Peter Thiel	246472008400	246472008400 1350	
25227 MORRISON &	7590 03/20/2007 & FOERSTER LLP	EXAMINER			
1650 TYSONS BOULEVARD			TRAN, LEN		
SUITE 400 MCLEAN, VA	22102		ART UNIT	PAPER NUMBER	
WOLLAN, VA	-		1725		
SHORTENED STATUTORY PERIOD OF RESPONSE MAIL DATE		DELIVER	Y MODE		
3 MONTHS		03/20/2007	PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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	Application No.	Applicant(s)				
	10/550,594	THIEL, JENS-PETER				
Office Action Summary	Examiner	Art Unit				
	Len Tran	1725				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).						
Status						
1) Responsive to communication(s) filed on 23 Se	eptember 2005.					
,— · · · · · · · · · · · · · · · · · · ·	action is non-final.					
3) Since this application is in condition for allowar		secution as to the merits is				
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.						
Disposition of Claims						
4) Claim(s) 1-15 is/are pending in the application.						
4a) Of the above claim(s) <u>9-15</u> is/are withdrawn from consideration.						
5) Claim(s) is/are allowed.						
6)⊠ Claim(s) <u>1-4,6-8</u> is/are rejected.						
7)⊠ Claim(s) <u>5</u> is/are objected to.		·				
8) Claim(s) are subject to restriction and/or	r election requirement.	•				
Application Papers						
9) The specification is objected to by the Examine	r					
10)⊠ The drawing(s) filed on <u>23 September 2005</u> is/are: a)⊠ accepted or b)⊡ objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).						
	•	• •				
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.						
Priority under 35 U.S.C. § 119						
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).						
a)⊠ All b) Some * c) None of:						
1. Certified copies of the priority documents have been received.						
2. Certified copies of the priority documents have been received in Application No						
3. Copies of the certified copies of the priority documents have been received in this National Stage						
application from the International Bureau (PCT Rule 17.2(a)).						
* See the attached detailed Office action for a list of the certified copies not received.						
Attachment(s)						
1) Notice of References Cited (PTO-892)  4) Interview Summary (PTO-413)  Paper No(s)/Mail Date						
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08)	Paper No(s)/Mail Da 5) Notice of Informal P					
Paper No(s)/Mail Date <u>9/23/05, 4/19/06</u> . 6) Other:						

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### **DETAILED ACTION**

#### Election/Restrictions

- 1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-8, drawn to a method, classified in class 164, subclass 113.
  - II. Claims 9-13, drawn to an article, classified in class 428.

The inventions are distinct, each from the other because of the following reasons:

- 2. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the method can be used to make a piston.
- 3. Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.
- 4. During a telephone conversation with Mr. Johnathan Bockman on March 7, 2007, a provisional election was made without traverse to prosecute the invention of group I, claims 1-8.

  Affirmation of this election must be made by applicant in replying to this Office action. Claims

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9-15 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

## Claim Rejections - 35 USC § 103

- 6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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8. Claims 1, 2, 3, 4, 6, 7, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art (page 1), and further in view of Clark (US 1,210,421) and Clements (US 3,254,849).

Applicant's admitted prior art (page 1) discloses the method of producing a grinding body comprising the steps of forming a core and placing in a mold, then pouring molten metal to form the grinding body.

Applicant's admitted prior art fail to teach using a holding element to hold the main core (grinding body) and having a casing around the holding element.

However, Clark (US 1,210,421) discloses using an arbor (6) to support the main core (7).

Therefore, it would have been obvious to an ordinary skill in the art to have an arbor as taught by Clark, in Applicant's admitted prior art, in order to hold the grinding body core during casting.

Furthermore, Clements (US 3,254,849) discloses using a metallic casing (11) having the same composition as that contemplated for the finished product so as to minimize thermal expansion and contraction differences within the wall of the finish product.

Therefore, it would have been obvious to an ordinary skill in the art to have a metallic casing taught by Clements, over the core of Clark, in order to both support the main core and having the same metallic composition as the final product in order to minimize thermal expansion and contraction of the grinding body.

Also, it would have been obvious to have the excess length of the metallic casing to be between one and two thirds of the diameter of the holding elements, since this would depend on Art Unit: 1725

the size of the main core. A larger main core would require more excess length in order to have enough leverage for holding.

## Allowable Subject Matter

Claim 5 is objected to as being dependent upon a rejected base claim, but would be 9. allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Len Tran whose telephone number is (571) 272-1184. The examiner can normally be reached on M-F, 8:30 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Len Tran

Primary Examiner

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March 17, 2007